

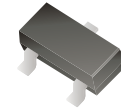
## CDBV3-54/S/C/A-HF

Reverse Voltage: 30 Volts

Forward Current: 200 mA

RoHS Device

Halogen Free



### Features

- Design for mounting on small surface.
- High speed switching application, circuit protection.
- Low turn-on voltage.

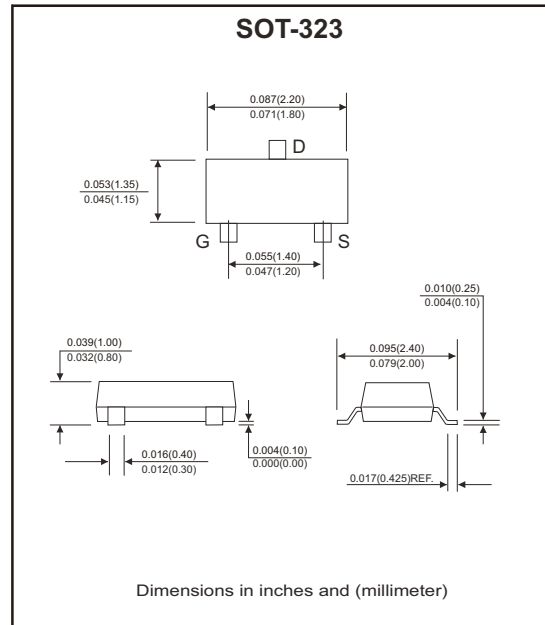
### Mechanical data

- Case: SOT-323, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Weight: 0.0055 grams (approx.).

### Circuit Diagram



CDBV3-54-HF    CDBV3-54S-HF    CDBV3-54C-HF    CDBV3-54A-HF



### Maximum Ratings and Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Value	Units
Repetitive peak reverse voltage	$V_{RRM}$		30	V
Reverse voltage	$V_R$		30	V
Forward current	$I_F$		200	mA
Peak surge forward current	$I_{FSM}$	T=1.0 sec	0.6	A
Power dissipation	$P_D$		200	mW
Maximum forward voltage	$V_F$	@ $I_F=0.1mA$ @ $I_F=1mA$ @ $I_F=10mA$ @ $I_F=30mA$ @ $I_F=100mA$	0.24 0.32 0.40 0.50 1.00	V
Maximum reverse current	$I_R$	@ $V_R=25V$	2	$\mu A$
Maximum reverse recovery time	$T_{rr}$	$I_F=I_R=10mA, R_L=100\Omega$	5	nS
Maximum diode capacitance	$C_J$	$V_R=1V, f=1.0MHz$	10	pF
Maximum junction temperature	$T_J$		125	°C
Storage temperature	$T_{STG}$		-55 to +150	°C

## Rating and Characteristic Curves (CDBV3-54/S/C/A-HF)

Fig.1 - Forward Characteristics

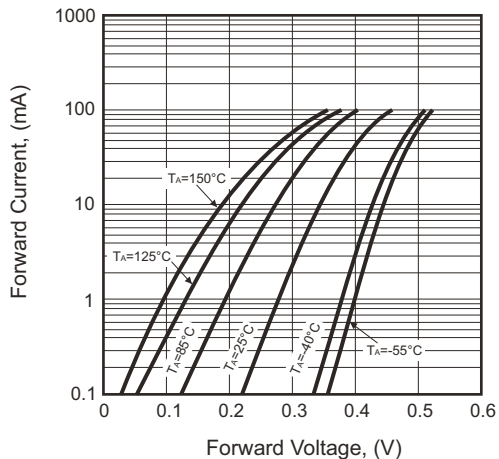


Fig.2 - Leakage Current

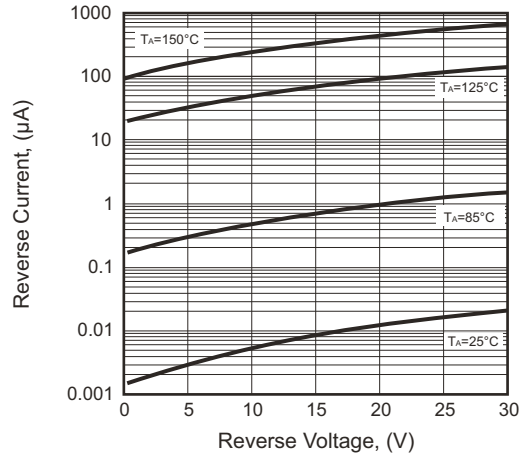


Fig.3 - Total Capacitance

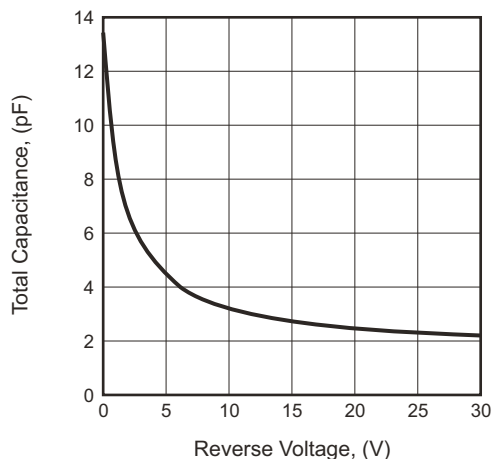
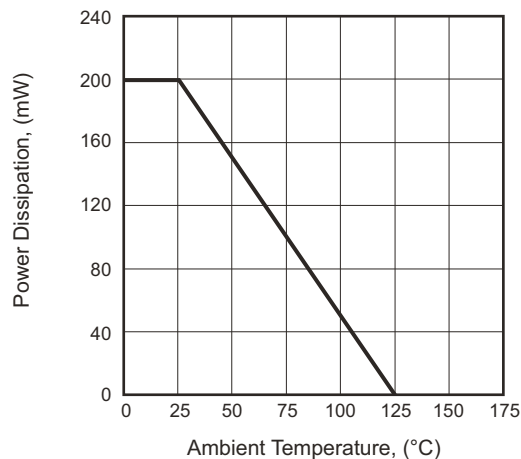
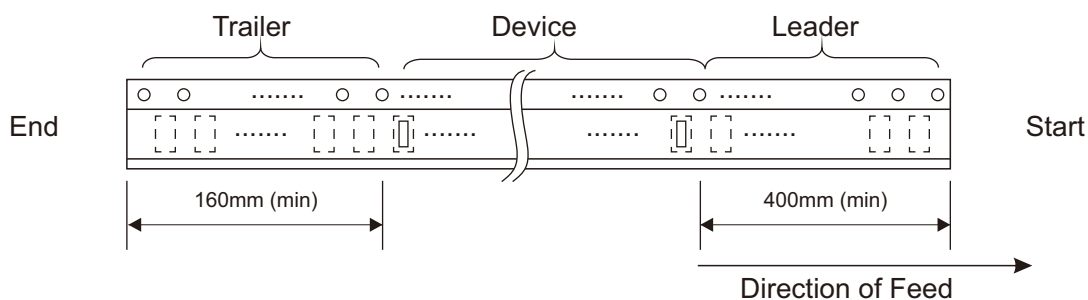
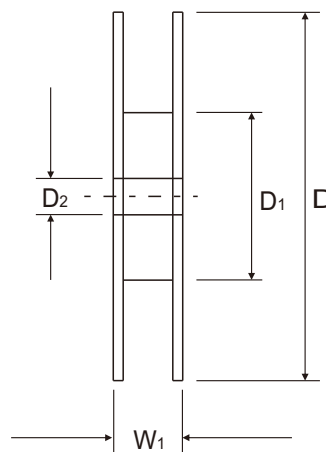
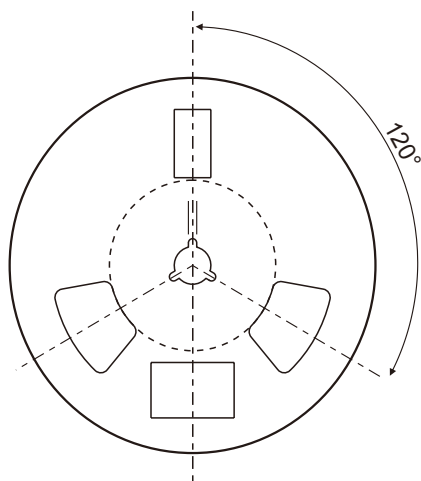
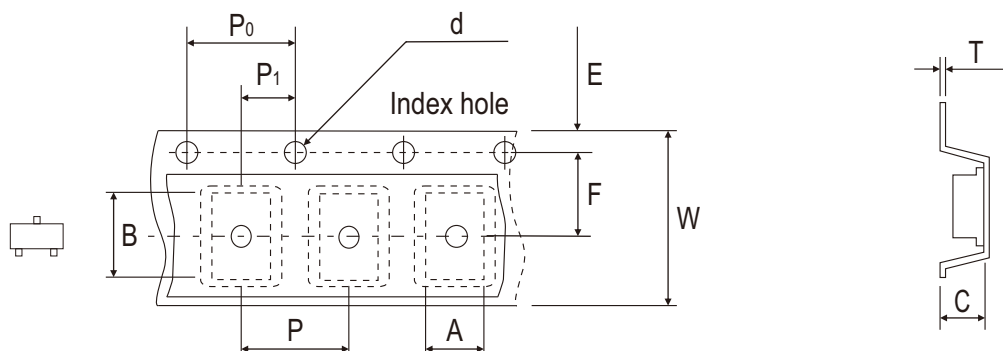


Fig.4 - Power Derating Curve



## Reel Taping Specification



SOT-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.20 ± 0.10	2.40 ± 0.10	1.15 ± 0.10	1.55 ± 0.10	178 ± 1	50.0 MIN.	13.0 ± 0.20
	(inch)	0.087 ± 0.004	0.094 ± 0.004	0.045 ± 0.004	0.061 ± 0.004	7.008 ± 0.040	1.969 MIN.	0.512 ± 0.008

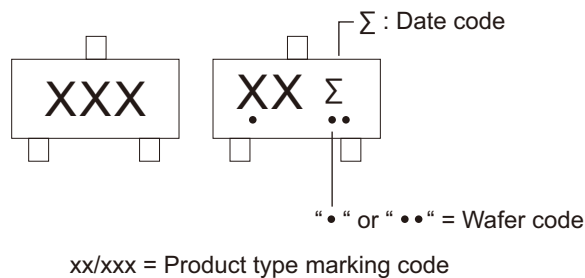
SOT-323	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.30	14.4 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.012	0.567 MAX.

Company reserves the right to improve product design, functions and reliability without notice.

REV:D

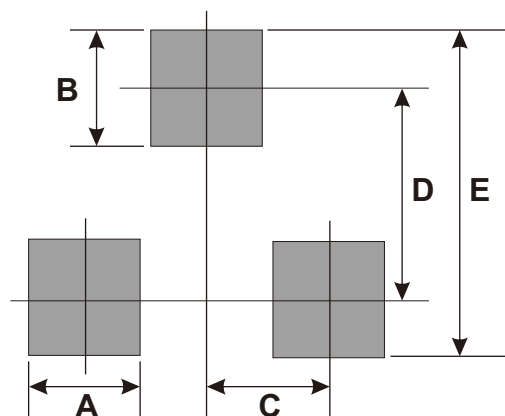
## Marking Code

Part Number	Marking Code
CDBV3-54-HF	KL5 , B4
CDBV3-54A-HF	KL6 , B7
CDBV3-54C-HF	KL7 , 5C
CDBV3-54S-HF	KL8 , B8



## Suggested P.C.B. PAD Layout

SIZE	SOT-323	
	(mm)	(inch)
A	0.70	0.028
B	0.90	0.035
C	0.65	0.025
D	1.90	0.075
E	2.80	0.110



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-323	3,000	7